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Remarks

Applicant respectfully requests entry of the above amendments to either put the case into condition for allowance or in better condition for appeal.

The invention as presently claimed pertains to a paperboard with a tie-layer in direct contact with the paperboard and with a nylon layer in contact with the tie layer. The nylon layer as claimed is an exposed layer (e.g., not covered with LDPE) that would contact the package contents when the packaging material is in use. It would allow added layers on the side of the paperboard opposite the tie layer/nylon structure, but no layer on top of the nylon layer. As such, there is no flavor scalping from the packaged product as would happen with LDPE, there is no "off-taste" given to the packaged product, and there is reduced absorption of moisture from packaged product.

Art Rejection - Novelty

3. At present, Claims 1 – 4 and 6 – 7 are rejected under 35 U.S.C. §102(b) as being as being anticipated by Parks et al. as evidenced by DuPont (DuPont Packaging). Reconsideration of this rejection is requested in view of amendments and following remarks.

Parks et al. teaches a multi-layer laminate that includes amorphous nylon, but the nylon layer is an inner layer between outer layers of olefin polymer (see Abstract).

As amended, the claims are intended to preclude the polyolefin layer on top of the nylon layer (c), that is, the nylon layer (c) is an outer layer, not an inner layer. See structure and examples on p. 5.

Since Parks et al. does not teach or suggest all the limitations of the claims as presently amended (PA6-and-amorphous-polyamide layer not being an inner layer), the novelty rejection cannot stand.

It should be noted that the heart of the Parks et al. invention is the use of amorphous nylon in lieu of EVOH (see the examples as well as Figures 4 – 7) as an inner layer (see abstract, all examples, and Figures 1, 2, 3a, and 3b). There is no suggestion in Parks et al., taken as a whole, of a structure that has an ethylene copolymer or grafted ethylene copolymer layer

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(b) adhered directly to the paperboard with a nylon layer (c) adhered to layer (b) without a further coating of polyolefin on top of layer (c).

The fact that the structure can be used for non-liquid dry products doesn't change this. Contrary to the suggestion in the office action, Applicant sees no suggestion in Parks et al., taken as a whole, that the polyolefin coating over the amorphous nylon not be used with dry products. At page 2, II. 1 – 4, Parks et al. includes non-liquid, dry products in the list of liquid products that use the "laminates" of the Parks et al. invention, thus not treating dry products any differently than liquid products. The laminates of the Parks et al. invention all have the amorphous nylon layer as an inner layer. At page 2, II. 51 – 54, Parks et al. again does not treat dry products any differently than liquid products, indicating that both liquid and non-liquid products use paperboard with "a multilayer polymer sandwich structure containing amorphous nylon polymer" applied to the paperboard. The sandwich structure throughout Parks et al. has the amorphous polyamide "contained" as an inner layer. At page 2, I. 55 – page 3, I. 1, the strength of amorphous nylon is discussed. It states that the "amorphous nylon can be used as the barrier material in a paperboard substrate without requiring an additional high strength polymer or an additional oxygen barrier layer." Even this does not suggest other than the amorphous nylon as an inner layer. Note, the barrier material is "in" not "on" the paperboard substrate and that the very next paragraph starts with the word "Thus" and proceeds to describe an embodiment with a base structure and a 5-layer sandwich with the amorphous nylon being an inner layer in the structure.

Obviousness Rejections

5. At present, Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Parks et al. as evidenced by DuPont (DuPont Packaging).

Reconsideration of this rejection is requested in view of amendments and following remarks.

Claim 8 as amended has the nylon layer (c) as an outside layer, not any inner layer. As such, it is patentable for the same reasons as discussed above for claims 1 – 4 and 6 – 7. Additionally, Claim 8 differs from Parks et al. in paper thickness. Applicant sees no suggestion in the reference

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taken as a whole to employ paperboard having a weight of 20 to 200 grams/meter². There is no motivation in the cited references to use the lower weight paperboard. To the contrary, the only example in Parks et al. that uses Selar®PA, an amorphous polyamide, is Structure 5. This structure is described in Table 1 and at p. 5, ll. 2 – 4, where the paperboard is 260 lb/ream with a ream size of 3000 square feet (p. 5, l. 7). Using the conversion factors provided in the May 27, 2003 Amendment, the 260 lb/ream would be 423.02 grams/square meter (440.79 grams/square meter if trade size is 480 sheets). Also, note that Structure 5 requires LDPE on both sides of paperboard (that is layer (b)) is not in direct contact with the paperboard.

In view of the above, Applicant requests withdrawal of rejection.

6. At present, Claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over Parks et al. in view of DuPont (DuPont Packaging) as applied to Claims 1 – 4 and 6 – 7 and further in view of Zabrocki. Reconsideration of this rejection is requested.

Applicant repeats the above arguments for Claims 1 – 4 and 6 – 7 with respect to this rejection. Zabrocki does not cure any of the deficiencies not cured with respect to Claims 1 – 4 and 6 – 7. For these reasons, the rejection of Claim 5 cannot stand.

In view of the above, Applicant requests withdrawal of rejection.

Conclusion

In view of the above remarks and amendments, all claims are now in condition for allowance and notice to that effect is requested. If the Examiner believes that an interview would expedite allowance, the Examiner is urged to contact Applicant's attorney by telephone at (302) 992-3219.

Respectfully submitted,



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Dated: December 3, 2003